

REMARKS/ARGUMENTS

Claims 18-30 are currently pending in the above-identified application. The specification has been amended as indicated below. Applicants respectfully request reconsideration of the application in light of these amendments and the following remarks.

The Examiner has noted that the abstract is missing from the IFW for this application and has requested Applicants to provide a copy with this response. As requested, Applicants have attached as an Appendix a copy of the abstract as filed in the US Receiving Office of the US PTO.

Further, the Examiner has objected to the specification as failing to provide proper antecedent basis for the claimed subject matter. In particular, the Examiner has noted that the limitations lipase, cyanogen bromide, chymotrypsin or papain can be found in the description. Applicants have amended the paragraph beginning at line 25 of page 12 to recite, "The parent proteins and polypeptides present in a spot can be further fragmented by admixing a chemical, such as, for example, cyanogen bromide, or a protease, including, for example, trypsin, chymotrypsin, or papain, with an excised gel spot." Further, the paragraph beginning at line 4 of page 13 has been amended to recite, "Complex carbohydrates can be fragmented by chemical means or by means of an enzyme. Lipids can be fragmented by chemical means or by means of an enzyme, including for example, a lipase." Each amendment is fully supported by the specification of the original parent application US serial number 60/098,598, filed August 31, 1998 and US serial number 09/786,066, filed February 28, 2001 which is a U.S. national stage application of PCT/US99/19434, filed August 30, 1999, now issued as US Patent 6,653,076. The terms were used in the claims as originally filed and as such the terminology can be added to the specification and no new matter has been added.

Rejections Under 35 U.S.C. §102

Claims 18, 19 and 22 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,338,686 (herein after referred to as "Hellerstein"). In particular, the Examiner has summarized the specification of Applicants as claiming a method for determining the rate of degradation of a biopolymer comprising adding a stable isotope-labeled monomer to a biopolymer pool, collecting first and second samples and measuring the relative abundance of monoisotopic and isotopomeric peaks of the first and second samples and determining the rate of polymer degradation. The biopolymer can be a lipid, and degradation is measured in an organism, isolated cell or cell-free system.

The Examiner has cited US Patent 5,338,686 (Hellerstein) as teaching a method for determining the rate of degradation of an isotopically labeled biopolymer comprising adding a stable isotope-labeled subunit (monomer) to a biopolymer pool, collecting first and second samples and measuring the relative abundance of monoisotopic and isotopomeric peaks using mass spectrometry, calculating the difference between the peaks of the first and second samples and determining the rate of biopolymer decay. The biopolymer used in example 5 is cholesterol. The measurement of decay occurs *in vivo* in male Sprague-Dawley rats. Serial timepoints were collected and individual mass isotopomers were plotted over time to determine the rate of decay.

Applicants believe that the Examiner has misinterpreted the teachings of Hellerstein. In particular, Hellerstein teaches a method similar to that of Applicants, but instead of using a simple calculation of relative abundance, Hellerstein teaches the determination of the frequency of the mass isotopomer of the biopolymer. The determination of the frequency of mass isotopomer requires the calculation of molar excesses of the isotopomer, followed by the determination of the ratios of the excesses. Regression equations are then used to calculate a value "p". This value is compared with, for example, carbon enrichment to determine the frequency "f". As set forth by Applicants these difficulties and complications were discussed in the specification at, for example, page 2, line 17 through page 3, line 10. As such, Applicants do

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not believe that the methods taught by Hellerstein anticipate claims 18, 19 and 22.
Reconsideration and withdrawal of the present rejection is respectfully requested.

Allowable Subject Matter

Applicants note that the Examiner has indicated that claims 20-21 and 23-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 206-467-9600.

Respectfully submitted,

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Brian W. Poor
Brian W. Poor
Reg. No. 32,928

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 206-467-9600
Fax: 415-576-0300
BWP:jms
Attachment: Exhibit A
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